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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,530

03/17/2006

Tadanobu Takeuchi

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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

MAIL DATE

DELIVERY MODE

02/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,530	<b>Applicant(s)</b> TAKEUCHI ET AL.	
	<b>Examiner</b> Melody M. Burch	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/17/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the phrase "constituting element" used in line 2 of claim 4 lacks proper antecedent basis in the originally filed specification.

### ***Claim Objections***

4. Claims 2-4 are objected to because of the following informalities: The following phrases lack proper antecedent basis in the claims:

- "the housing" in line 2 of claim 2, lines 3-4 of claim 4;

- “the hole part” in line 9 of claim 2, line 5 of claim 3;
- “the slit part” in line 10 of claim 2, line 6 of claim 3;
- “the larger outer diameter” in lines 11-12 of claim 2, lines 7-8 of claim 3, lines 6-7 from the bottom of claim 4;
- “The volume controlling spacer” in line 1 of claim 3, line 1 of claim 4;
- “the housing” in line 3 of claim 3;
- “the metallic bellows type accumulator” in lines 2-3 of claim 4;
- “the shell” in line 4 of claim 4;
- “the gas end cover” in line 4 of claim 4;
- “the metallic bellows” in line 5 of claim 4.

Also, claims 3 and 4 lack proper transitional terms such as "comprising" or "including". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Prior Art figure 5.

Re: claims 1 and 3. Prior art figure 5 shows an accumulator 51 comprising: a spacer 53 for controlling a volume provided in an inner portion of a housing, wherein the spacer is formed in a disc shape by a predetermined resin material as disclosed in lines

7-8 of pg. 2 of the instant specification, has a hole part shown to the right of the lead line of number 53 in a center of a flat surface, has a slit part at one position on a circumference as shown in the area above the end of the lead line of number 53, has a larger outer diameter than an inner diameter at a position where the spacer is inserted in the housing, is inserted to the housing in a state in which the outer diameter is contracted, and is fixed to an inner diameter side of the housing on the basis of its elastic restoring force as disclosed in the line 4 from the bottom of pg. 1 to line 3 of pg. 2 of the instant invention.

Re: claims 2 and 4. Prior art figure 5 describes the invention substantially as set forth in the rejection of claim 1 and includes a metallic bellows 54 arranged in an inner portion of the housing, the housing provided with a shell shown immediately outside of element 54 and a gas end cover 55.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Application 2007/0024109 to Yoshihara et al. and US Patent 7318452 to Yoshihara et al. teach the use of accumulators including a housing with a shell, a bellows, and end cap cover and a spacer. US Patent 3640172 to Mercier teach the use of an accumulator having a spacer that has an outer diameter that is greater than the inner diameter of a portion of the housing. US Patent 5694810 to Iwasa et al. teach the use of a stopper being made of resin for the purpose of providing a material that is lightweight and low in cost. US Patents: 6848755 to Yuda et al. and

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6502828 to Sasaki teach the use of accumulators having a housing, a bellows, and an end cap cover.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb  
February 19, 2008

/Melody M. Burch/  
Primary Examiner, Art Unit 3683

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